

Oil Spill Response Challenge

Application Form

Thank you for applying for the Oil Spill Response Challenge!

Please read the Applicant Guide for Stage 1 in full, to assist you in filling out this form. It should be noted that the Applicant Guide contains very important and mandatory background information on eligibility to receive prizes and on the evaluation criteria from which submissions will be judged.

You must answer all fields as indicated and complete all three mandatory sections of the application form. Your application may not be considered if it is incomplete. The survey (Section 4) is optional.

Note: You will be able to save your application form and continue at a later time.

All applications must be received no later than June 1, 2022 at 11:59PM Pacific Time. Entries received after this time will not be accepted.

*** These fields are mandatory**

Section 1: Applicant Details

***1.1 Title of your proposed solution**

(may be made public)

***1.2 Describe your solution in one sentence using clear and simple language**

(may be made public, limit of 200 characters)

***1.3 Lead Organization/Group**

Enter the information of the organization that is leading the solution and which will receive prize funding if the solution is successful in the challenge.

1.3.1 Organization Name

1.3.2 Full Legal Name of Organization/Group (if incorporated)

1.3.3 Street Address

1.3.4 City

1.3.5 Province

- Alberta
- British Columbia
- Manitoba
- New Brunswick
- Newfoundland and Labrador
- Northwest Territories
- Nova Scotia
- Nunavut
- Ontario
- Prince Edward Island
- Quebec
- Saskatchewan
- Yukon

1.3.6 Country

1.3.7 Postal Code

1.3.8 Mailing Address (if different than address above)

1.3.9 Business E-mail

1.3.10 Business phone number (xxx-xxx-xxxx)

1.3.11 Organization/Group website URL (if available)

***1.4 Confirm the applicant category that applies to you:**

- Business or other for-profit organizations
- Not-for-profit organizations
- Indigenous organizations and groups
- Post-secondary/academic institutions
- Individual or group of individuals
- International individuals and entities

***1.5 Is your organization incorporated in Canada?**

- Yes
- No, but I confirm that I will incorporate in Canada to be eligible to receive funding

***1.5.1 CRA Registration Number for Businesses, Charities or Not-for-Profit Organizations**

Please only include your nine-digit Business Number (BN): It is a unique number the Canada Revenue Agency (CRA) assigns as a tax ID and is used when dealing with federal, provincial, or local governments. [Visit this link for more information](#). If you're an academic organization, please include the BN of the entity (e.g. research centre, lab, etc.) that will receive prize funding if the solution is successful in the challenge.

***1.6 Contact Person for the Team:**

1.6.1 Full Name

1.6.2 Job Title

1.6.3 Organization

1.6.4 E-mail Address

1.6.5 Telephone Number (xxx-xxx-xxxx)

1.6.6 Preferred language of communication

- English
- French

1.7 [Optional] Additional Contact Persons
(maximum 2)

Full Name	Job Title	Organization	E-mail

1.8 If you are collaborating with other organizations to develop your solution, list them below and briefly indicate their role in the solution development process, if applicable
(maximum 10)

Organization	Role

***1.9 What OSR Challenge stream are you applying to? Recovery or Detection?**
Please select based on the primary purpose of your solution.

- Detection
- Recovery

Section 2: Proposed Solution Details

2.1 Design Abstract

This is your elevator pitch to describe your solution to the judging panel. This is your opportunity to make a strong first impression, so make every word count!

Provide a brief summary description of your solution to address the following questions:

- What is your proposed technology?
- How is your technology relevant to oil spill response?
- How does your technology improve oil spill detection and/or oil spill recovery?
- What type of diverse Canadian aqueous conditions does your technology address?
- What is novel and innovative about your proposed technology?

(Character limit: 1500)

*2.2 Solution Design

The project brief should include:

- Description of the problem that your solution is targeting.
- Description of your solution - Where does the proposed technology fit in the sequence of oil spill clean-up operation measures or techniques (e.g. before a spill, immediately after a spill, ongoing recovery)? What is the gap it addresses and how?
- Indicate the [Technology Readiness Level](#) (TRL) of your solution/technology at the time of application (Stage 1). Describe how you have achieved proof of concept.
- Indicate how scalable and replicable your solution is. Are there lessons learned from other technologies that can be applied to your project? Describe the risk factors in scaling up and risk mitigation measures.

(Character limit: 6000)

*2.3 Project Plan

What are the project goal(s)/objective(s)? Describe how you will you develop your solution further, including proposed activities and key milestones.

- Present key project team members, areas of expertise and partner organizations that will help you achieve this.
- Describe the project budget and anticipated costs.
- What is your target TRL at the end of the OSR Challenge prototype testing stage (Stage 2)? Please explain how you intend to meet your stated TRL.
- What are your risks for not meeting TRL targets during the OSR Challenge?

- With a focus on Stage 2, explain the risk and corresponding mitigation strategy(s) for each risk.

(Character limit: 6000)

***2.4 Describe how the solution addresses assessment criteria (as outlined in the Applicant Guide)**

***2.4.1 Effectiveness Detection Stream (only):**

What is the anticipated improvement in the amount of time lapsed between the start of an oil spill in an aquatic environment and when it is detected, decreased, and/or eliminated with your solution or technology? If known, what is the amount of time for detection of the most comparable oil spill response technology to your proposed solution?

(Character limit: 3000)

*If known, how reliable is the proposed detection solution based on the results to date or what is the projected reliability of detection (and basis for this projection)?

(Character limit: 3000)

***2.4.1 Effectiveness Recovery Stream (only):**

What is the anticipated improvement in oil spill recovery from this technology (i.e. the anticipated total % of spilled oil recovered from an aquatic environment)? Please explain in detail. If known, what is the percentage of oil recovery of the most comparable oil spill response technology to your proposed solution?

(Character limit: 1500)

What is the projected oil recovery rate (% recovered per unit of time) for your solution or technology? Please explain in detail. If known, what is the oil recovery rate (% recovered per unit of time) of the most comparable oil spill response technology to your proposed solution?

(Character limit: 1500)

***2.4.2 Innovativeness**

Explain the potential for your solution to transform the way oil spill recovery or detection is done today. How is your solution or technology innovative? How does your technology present a "state-of-the-art" solution, and how does it represent a significant improvement upon current oil spill recovery or detection technologies?

(Character limit: 3000)

*2.4.3 Applicability

Provide a detailed explanation of the capacity for your solution to effectively recover or detect an oil spill under the various conditions listed below. Also include a detailed explanation of the limitations where applicable.

- Source of Spill: water transport (immersed pipelines, ships) or terrestrial transport (railroads, trucks, pipelines)
- Volume of Spill: minimum and maximum volume threshold of oil spill detection or recovery capacity
- Immersion of Spill: submerged pipelines, submerged or sunken oil, type of spread or emulsion, or other
- Oil Type(s): light, medium, or heavy oil (identify if diluent is used) described in API gravity if known
- Environment: marine offshore/nearshore, coastal, rivers, lakes, Great Lakes, or other
- Targeted Conditions: weather conditions (e.g. cloud cover), remote aquatic areas, laminar to turbulent waters, ice covered or icy, or other

(Character limit: 4500)

*2.4.4 Environmental Impact

Provide information on the solution's potential environmental impacts, including:

- List sources (e.g. combustion, reactions) and types of greenhouse gas emissions or air emissions resulting from use of your technology from the moment the technology is applied to the area where an oil spill has occurred until the end of the operation. Quantification is not required.
- Are environmentally harmful chemicals being used as a part of the proposed technology? Please identify and describe.
- Explain potential impacts or risks on local fisheries and wildlife of the proposed technology. Provide any relevant mitigation strategy(ies).

(Character limit: 3000)

*2.4.5 Usability (Practicality)

Describe operational requirements and practicality of implementing the solution in the field in comparison to incumbent solutions, identifying:

- Logistics for deployment (e.g. portability, transportation, storage, disposal of waste)
- Speed of deployment and constraints to deployment
- Human resource requirements for deployment and operation
- Energy sources and availability
- Infrastructure requirements

(Character limit: 4500)

***2.4.6 Market Readiness/Commercialization**

Describe your plan for eventual commercialization of the technology. Where applicable, identify:

- Value proposition
- IP strategy and ownership
- Partners Stakeholders, adopters, regulators and investors engaged or plans to engage
- Competitive landscape
- Barriers and plans to overcome them (e.g. market, regulatory)

(Character limit: 8000)

2.5 Supporting Material

***2.5.1** Include any visual representations of the solution or technology, which may include models, schematics, drawings or process charts.

(Maximum five (5) 8.5" x 11" pages; PDF; maximum 8MB)

2.5.2 [Optional] Include any preliminary data or calculations that support the design and operation of the detection or oil spill response technology.

(Maximum two (2) 8.5" x 11" pages; PDF; maximum 8MB)

2.5.3 [Optional] If available include any existing articles of incorporation

(PDF; maximum 8MB)

2.5.4 [Optional] If available include any letters of recommendation.

(PDF; maximum 8MB)

***2.5.5 Intellectual Property**

- Who owns the intellectual property of the proposed solution? Explain, taking into account the context of your organization.

- Is the solution built on existing or off-the-shelf technology protected by intellectual property (e.g. patents, copyrights, trade secret, etc.)? If so, detail the permissions (if applicable) you have to use that technology.

(Character limit: 2000)

*Certification

I certify that the Applicant and my Team members have all the rights/permissions for using the intellectual property for the proposed detection or recovery technology, as part of this challenge.

Section 3: Declaration

*3.1 Attestation

As the authorized person to sign for the Applicant, I declare that:

- The information in the application is true, accurate and complete;
- I have all the necessary authorities to undertake the proposed project, or will obtain these authorities prior to the approval of the project;
- If selected as a Challenge finalist, I will become a legal entity (company or corporation) duly incorporated and validly existing in Canada in order to adhere to eligibility requirements;
- I and any person lobbying on my behalf to obtain funding are in compliance with the Lobbying Act and that no actual or potential, direct or indirect, contingency fee arrangement exists;
- No public servant or holder of public office, past or present, will derive a direct benefit from the approved funding in breach of the Values and Ethics Code for the Public Service or the Conflict of Interest Act; and,
- I will act in compliance with applicable statutes, regulations, orders, standards and guidelines governing the program from which funding is being sought.
- I acknowledge that the submission of this Application does not constitute a commitment on the part of the Minister of Natural Resources to award funding. The payment of monies by Canada is subject to there being an appropriation by Parliament for the Fiscal Year in which the payment of monies is to be made.

I authorize the Minister of Natural Resources to disclose any information submitted in this Application within the Government of Canada or to outside entities, subject to applicable restrictions associated with privacy, confidentiality and security for the following purposes:

- To reach a decision on the application;
- To support transparency, accountability and citizen engagement; and,

- To respond to requests made under the Access to Information Act and the Privacy Act.

Attestation Agreement

By clicking this box, I agree to this attestation

***3.2 As Primary Contact for my Team, I confirm that I represent the Applicant and my Team when completing the following section, and that the Duly Authorized Representative of my organization is supportive of our submission (if applicable).**

- Yes
- No

***3.3 As Primary Contact and on behalf of the Applicant and my Team, I confirm that I have read and accepted the terms and conditions contained in the Applicant Guide.**

- Yes
- No

Use and/or Disclosure

The personal and/or business information in, accompanying and/or submitted in support of this application is being collected under the authority of the Department of Natural Resources Act and, by applying to the Challenge, Applicants agree that such information, may be used by NRCan, or disclosed to third parties including other Government Departments and members of the Review Committee, to:

- assess and review the eligibility of the Applicant and the Solution under the applicable NRCan program;
- verify the accuracy of the information provided in or with the application form and additional documents;
- assess the efficiency of the challenge model in furthering departmental priorities; and
- assess how well the initiative contributed to NRCan program objectives.

The Applicant consents that the information may also be used for the purposes of: contacting you should additional information be required; validating your credentials; signing a grant agreement; facilitating payment of the grant in the event your application is successful; program administration; and evaluation, reporting, and statistical analysis.

Personal information will be treated and disclosed in accordance with the <http://laws-lois.justice.gc.ca/eng/acts/P-21/index.html>. You have the right to access your personal information held by NRCan and to request changes to correct personal information by contacting NRCan Access to Information and Privacy Protection Division.

Business information will be disclosed only in accordance with the provisions of [the Access to Information Act](#). Information on the *Privacy Act* and the *Access to Information Act* is available at the following website: <http://laws.justice.gc.ca>.

Copyright permission

NRCan may disclose, reproduce and distribute any part of or the whole of the documentation provided in or with this Application Form, within NRCan and to its authorized third parties, including other Government Departments, for purposes consistent with the receipt, assessment and subsequent treatment of the Application. Applicant warrants that NRCan is not breaching any intellectual property rights of the Applicant, Team members or any third parties by conducting such activities.

***3.4 I acknowledge that by submitting this challenge application form I agree to the above text.**

- Yes
- No

*Consent for Information Sharing

By submitting a proposal, you agree to the information provided in your application, including personal data, being used as described in the Privacy Section of the Oil Spill Response Challenge Applicant Guide, and as indicated in this Form. Do you agree that Natural Resources Canada may access the information included in this document:

- Yes

Do you agree that NRCan may share any information provided for the purposes of the Oil Spill Response Challenge with other funding entities of the:

- Government of Canada
- Provincial, Territorial, or Municipal Governments
- Not-for-Profit sector (e.g., Sustainable Development Technology Canada, the Green Municipal Fund)

Yes

No

Do you agree that NRCan may share any information provided for the purposes of the Oil Spill Response Challenge with the Government of Canada's Clean Growth Hub? The Clean Growth Hub is a whole-of-government focal point for clean technology focused on supporting companies and projects.

Yes

No

If your project is selected as a finalist or "honourable mention" at the end of Phase 1, do you agree that NRCan may publish the name of your organization, the title of your project, the public description of your project provided for this purpose, and the logo and/or images provided?

Yes

No

By clicking this box, you provide consent for information sharing, as described above:

Yes

No

Section 4: Survey [Optional]

Thank you for taking the time to complete this short survey about your recent experience as an applicant to an Impact Canada challenge.

The purpose of this survey is to gather your insights as an applicant to help us improve the design of future challenges so that they can more effectively stimulate innovation.

This survey is confidential. The data collected in this survey will be aggregated to help us understand what works in a challenge, and what to improve in future challenge design. No individual answers will be published. Your answers to this survey will not be used in the assessment process and will not affect your chances of success in this challenge or any other federal funding application.

For the purposes of this survey, the team is defined as the group of people, from one or multiple organizations, that are involved in the process of solution ideation and development directly linked to the participation in the challenge.

4.1 How did you first hear about the challenge?

- News outlets/news websites
- E-mail announcement of the challenge
- Social media posts by government
- Direct contact from government representative via social media, e-mail or others
- Networks related to the subject matter of the challenge (e.g. food waste)
- Networks related to innovation or entrepreneurship
- Impact Canada website
- Other

Please specify

4.2 Indicate the importance of each of the following incentives in motivating you to participate in the challenge.

	Importance			
	Not Important	Somewhat	Somewhat Important	Important
The chance to work on a tough problem or something I care about	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The chance to test out a new idea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The grand prize/final prize	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Any financial support/grants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to facilities or equipment (labs, testing facilities, industrial assistance, etc...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mentoring and skills development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chance to meet/network with experts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity to build collaborative partnerships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognition of achievement by the government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Media exposure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other incentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4.3 Prior to the launch of this Challenge, how much did you know about the Challenge problem area?

- Nothing, the challenge made me aware of the problem in the first place
- To a minimal extent
- To a moderate extent
- To a great extent

4.4 Prior to the launch of this Challenge, were you working in the same sector/domain as the Challenge problem area?

- Yes
- No

4.5 Prior to the launch of this Challenge, were you working on developing your proposed solution?

- Yes
- No

4.5.1 Did you make changes/improvements to your solution in order to apply to this Challenge?

- Yes

- No

4.6 To what extent did the Challenge motivate you to work on this specific problem?

- To a minimal extent (e.g., I would have worked on it anyway)
- To a moderate extent
- To a great extent
- It was the sole motivation

4.7 Did the challenge launch encourage you to create new partnerships with other organizations or individuals?

- Yes
- No

4.8 Which of the following statements best describes your team when you first decided to apply:

- The team was exclusively created to participate in the challenge
- The team existed but changed/expanded significantly
- The team existed but minor changes were made to team composition
- The team existed and no changes were made to team composition

4.9 How easy or difficult did you find the Challenge application process?

- Very easy
- Somewhat easy

- Somewhat difficult
- Very difficult
- Prefer not to answer / Don't know

4.10 In the past, have you applied to other Impact Canada Challenges (other than this Challenge)?

- Yes
- No

4.11 Other than Impact Canada challenges, have you ever applied for a Government of Canada grant or contribution program?

- Yes
- No

4.11.1 Relative to your experience with other Government of Canada funding applications, how easy or difficult did you find the challenge application?

- A lot easier
- Somewhat easier
- About the same
- Somewhat more difficult
- A lot more difficult
- Not applicable

4.11.2 Approximately how many grants or contributions have you received from the Government of Canada over the past five years?

- None
- 1 or 2
- 3 to 5
- More than 5

4.11.3 Approximately what was the total aggregate value of the grants and contributions you have received from the Government of Canada over the past five years?

- less than \$10,000
- between \$10,001 and \$50,000
- between \$50,001 and \$150,000
- between \$150,001 and \$300,000
- between \$300,001 and \$500,000
- between \$500,001 and \$1,000,000
- over \$1,000,001
- don't know

The following questions will help us to better interpret your responses to this survey. Rest assured that any data collected will strictly be used to help us understand whether and how challenges are an effective tool, and to help us improve upon their design in the future. No information that could potentially identify you or your responses to this survey will be released.

4.12 Where are you based?

- Canada

- International (outside Canada)

4.12.1 What is the postal code for your business headquarters? (May be used to track geographic distribution of applicants with respect to urban, rural and remote populations)

4.13 Is your entire challenge team based in the same geographical area?

- Yes, all team members are based in the same geographical area
- No, team members are spread out across Canada
- No, team members are spread out across Canada and internationally

4.14 What is the size of your organization?

- 1 to 4 paid employees
- 5 to 9 paid employees
- 10 to 19 paid employees
- 20 to 99 paid employees
- 100 to 499 paid employees
- Over 500 paid employees
- Prefer not to answer/do not know

4.15 Is your business majority (i.e. over 50%) owned by individuals who self-identify as:

- Women
- Men
- Non-binary, gender fluid or two-spirit

- Prefer not to answer/do not know
- Other

Please specify

4.16 Is your business majority (i.e. over 50%) owned by individuals who self-identify as youth:

- Yes, Youth (30 years old or under)
- No, not Youth (above 30 years old)
- Prefer not to answer/do not know

4.17 Is your business majority (i.e. over 50%) owned by individuals who self-identify as an Indigenous person(s):

- Yes, Indigenous person(s)
- No, not Indigenous person(s)

4.17.1 If yes, please select the options that the majority owners of your business identify with (check as many as apply):

- First Nations (First Nations includes Status and Non-Status Indians)
- Inuit
- Métis
- Prefer not to answer/do not know
- Other

Please specify

4.18 Is your business majority (i.e. over 50%) owned by individuals who self-identify as a person(s) who are from a visible minority group (other than Indigenous):

- Yes, Person(s) who are from a visible minority group (other than Indigenous).
- No, Person(s) who are from a visible minority group (other than Indigenous).

4.18.1 Please select the options that the majority owners of your business identify with (check as many as apply):

- Black
- Latin American
- Arab
- West Asian (e.g., Iranian, Afghan, etc.)
- South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)
- Chinese
- Korean
- Japanese
- Filipino
- Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai; etc.)
- Another visible minority group
- Prefer not to answer/do not know

Please specify

4.19 Is your business majority (i.e. over 50%) owned by individuals who self-identify as (check as many as apply):

- Person(s) living with a disability (e.g. physical, mental, or other long-term condition)
- Person(s) not born in Canada
- Person(s) who are recent immigrants to Canada (e.g. landed in Canada in the last 5 years)
- Person(s) living in an official language minority community
- Person(s) self-identifying as LGBTQ2+
- Other diverse group
- Prefer not to answer/do not know

Please specify

4.20 Confirm the applicant category that applies to you:

- Businesses or other for-profit organizations;
- Not-for-profit organizations;
- Post-secondary/academic institutions;
- Indigenous organizations and groups (e.g. First Nation band, Tribal Council or community under a Self-Government Agreement, Comprehensive Land Claim Agreement or the Métis Nation);
- Individuals or groups (non-incorporated);
- Government organization (federal, provincial/territorial, regional or municipal)
- Public utility

4.21 Please confirm your CRA registration number.

If you are a business, not-for-profit or academic institution, please only include your nine-digit Business Number (BN): It is a unique number the Canada Revenue Agency (CRA) assigns as a tax ID and is used when dealing with federal, provincial, or local governments.

[Visit this link for more information.](#)

If you're an academic organization, please include the BN of the main entity that will receive prize funding if the solution is successful in the challenge (e.g. department, research centre, lab, etc.)

Reference Only